



US009636565B2

(12) **United States Patent**  
Spiegel et al.

(10) **Patent No.:** US 9,636,565 B2  
(45) **Date of Patent:** May 2, 2017

(54) **RECREATION ROOM AND METHOD OF ADJUSTING THE ROOM ATMOSPHERE**(75) Inventors: **Volker Spiegel**, Berlin (DE); **Ulrich Fuchs**, Berlin (DE)(73) Assignee: **Volker Spiegel**, Berlin (DE)

(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **12/951,537**(22) Filed: **Nov. 22, 2010**(65) **Prior Publication Data**

US 2011/0065372 A1 Mar. 17, 2011

**Related U.S. Application Data**

(62) Division of application No. 10/535,352, filed on Nov. 22, 2005, now Pat. No. 7,841,929.

(30) **Foreign Application Priority Data**

Dec. 2, 2002 (DE) ..... 102 57 155

(51) **Int. Cl.**

<b>A61L 9/00</b>	(2006.01)
<b>A63B 71/04</b>	(2006.01)
<b>A61G 10/02</b>	(2006.01)
<b>F24F 3/16</b>	(2006.01)
<b>F24F 11/00</b>	(2006.01)

(52) **U.S. Cl.**

CPC .....	<b>A63B 71/04</b> (2013.01); <b>A61G 10/023</b> (2013.01); <b>F24F 3/16</b> (2013.01); <b>F24F 11/0001</b> (2013.01); <b>A63B 2208/053</b> (2013.01); <b>A63B 2213/006</b> (2013.01); <b>F24F 11/0012</b> (2013.01); <b>F24F 11/0015</b> (2013.01); <b>F24F 11/0017</b> (2013.01); <b>F24F 2003/1621</b> (2013.01); <b>F24F 2003/1625</b> (2013.01); <b>F24F</b>
-----------	--

2003/1692 (2013.01); **F24F 2011/0004** (2013.01); **F24F 2011/0021** (2013.01); **F24F 2011/0026** (2013.01); **F24F 2011/0028** (2013.01); **Y02B 30/78** (2013.01)

(58) **Field of Classification Search**

CPC .....	<b>A61L 9/00</b>
USPC .....	454/238

See application file for complete search history.

## (56)

**References Cited**

## U.S. PATENT DOCUMENTS

3,215,057 A *	11/1965	Turek .....	454/70
5,101,819 A *	4/1992	Lane .....	128/204.18
5,799,652 A *	9/1998	Kotliar .....	128/205.11
5,860,857 A *	1/1999	Wasastjerna et al. ....	454/338
5,887,439 A *	3/1999	Kotliar .....	62/78
6,427,484 B1 *	8/2002	Choi et al. ....	62/640

(Continued)

## FOREIGN PATENT DOCUMENTS

DE	41 42 122	6/1993
DE	694 17 929	12/1999

(Continued)

*Primary Examiner* — Steven B McAllister*Assistant Examiner* — Samantha Miller(74) *Attorney, Agent, or Firm* — Hahn Loeser & Parks LLP(57) **ABSTRACT**

The invention concerns a method of adjusting a room air in a first room wherein the room air is supplemented continuously or at recurring intervals of time by nitrogen or a nitrogen-bearing, carbon dioxide-poor gas mixture in such a way that the proportion of oxygen in the room air is less than 20.9% by volume and the proportion of carbon dioxide in the room air is less than 1% by volume, wherein at the same time at least a slight overpressure in relation to an outside atmosphere surrounding the room is set in the room.

## 6 Claims, 6 Drawing Sheets

